

ABSTRACT OF THE DISCLOSURE

Embodiments of the present invention include a storage-shelf-router-to-disk-drive interconnection method within a high-availability storage shelf amenable to dynamic reorganization in order to ameliorate error conditions that arise within the high-availability storage shelf. In one embodiment, each path-controller card within the storage shelf is interconnected to two storage-shelf routers on separate storage-shelf-router cards via two serial management links and two serial data links. Different types of errors that may arise within the storage shelf are carefully classified with respect to a number of different error-handling techniques, including local path failovers, single path failovers, error reporting and logging, and other types of error handling techniques. In many implementations, particular error handling methods are configurally associated with particular errors, in order to adapt error behavior in a storage shelf to the needs and requirements of a system that includes the storage shelf. Additional embodiments of the present invention concern detection and diagnosis of errors, in addition to handling errors that arise within a storage shelf.